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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Davenport Law Offices 5018 Holly Ridge Drive Raleigh, NC 27612			EXAMINER CHAMPAGNE, DONALD	
			ART UNIT 3688	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/839,451

Applicant(s)

CORTS ET AL.

Examiner

Donald L. Champagne

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Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 August 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 229-249 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 229-249 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 June 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-640)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Objections

1. The amendment filed 17 August 2010 is objected to as being illegible; see 37 CFR 1.52(a)(v). The scanned copy could not be read accurately by OCR. The original appears to have been written in a color other than black.
2. Possible solution: One attorney has found that this problem occurs with Microsoft "Tracking" software, even when the color is set to "black". Material is printed in a shade of gray that the USPTO software does not read well. The problem was solved by setting the color to "Auto".

Request for Interview

3. The following message was sent to the attorney of record on 22 August 2010. This case is unconditionally qualified for interview, and the examiner would be pleased to welcome the two people identified in the request (filed 17 August 2010) for an in-person interview. The requested date, 28 September 2010 at 2 PM, is fine. On that day go to the Knox building receptionist a few minutes early and the guard will process your entry and call me.
4. However, the examiner must suggest that the applicant consider cancelling the interview and appeal this case to the Board immediately. The reply to the last Office action (filed 17 August 2010) makes clear that the applicant and examiner have radically different views of what is patentable. The applicant's invention is based on patentable weight being given to a corporate entity, claimed as the "information provider" (pp. 7-8 of the reply).
5. By contrast, the examiner believes strongly that a corporate entity, or any other institution, is not "functional" in the sense meant by the patent law. The examiner is accordingly transmitting herewith a new (non-final) rejection with no patentable weight given to "information provider" as any more than any well-known device providing information. When this is done, the examiner believes so little is left that the claims are not even statutory, and a rejection under 35 USC 101 is also included below.
6. After having paid for prosecution through five RCE's, there is no one more entitled to a half hour of the examiner's time than Mr. Signorelli, the inventor scheduled to visit the Office on September 28. However, he and his fellow inventors need to be aware that the examiner has examined this art area for more than years without ever giving patentable weight to a

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"third party". Mr Signorelli should consider if he could make better use of his resources by immediately appealing this case to the Board and cancelling the interview set for September 28th..

Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claims 229-237, 240-245, 247 and 249 are rejected under 35 U.S.C. 101 because, considered as a whole, the claims are abstractions. (Bilski et al. v. Kappos, 561 U. S. ____ (2010)) The following analysis is based on the guidance published in the *Federal Register* on 27 July 2010. That is available with supplementary information at:

http://www.uspto.gov/patents/law/exam/bilski_guidance_27jul2010.pdf.

See especially pp. 3-4 of 11, the "101 Method Eligibility Quick Reference Sheet". The following Factors are taken from that sheet.

Factors weighing in favor of patentability of the claims:

- Recitation of a machine or transformation (either express or inherent) for "broadcasting".
 - Machine or transformation is particular.

Factors weighing against patentability of the claims:

- Insufficient recitation of a machine or transformation.
 - The machine is used only for "broadcasting". Involvement of machine, or transformation, with the steps is merely nominally, insignificantly, or tangentially related to the performance of the steps.
 - Machine is generically recited such that it covers any machine capable of performing the claimed step(s).
 - Machine is merely an object on which the method operates.
- The claim is not directed to an application of a law of nature.

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- The law of nature, “broadcasting”, is merely nominally, insignificantly, or tangentially related to the performance of the steps.
- The claim is a mere statement of a general concept of combining and broadcasting data.
 - Use of the concept, as expressed in the method, would effectively grant a monopoly over the concept.
 - Both known and unknown uses of the concept are covered, and can be performed through any existing or future-devised machinery, or even without any apparatus.
 - The claim only states a problem to be solved.
 - The general concept is disembodied.
 - The mechanism(s) by which the steps are implemented is subjective or imperceptible.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

10. Claims 229-237 and 247-249 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

(A) Beginning at line 2 of claim 229, “a second information provider” is new matter.

(B) In each independent claim 247-249 (e.g., at claim 247, line 2), “a separate and distinct provider” is new matter. See para. 6(A) below.

11. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

12. Claims 229-249 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

(A) At numerous places beginning with line 2 of claim 229, "information provider" is indefinite. Applicant has disclosed (pp. 7-8 of the arguments filed 17 August 2010) that "information provider" is the function provided by a certain company, Impulse Radio. First, the plain meaning of "information provider" would certainly include a "broadcaster", so it is not clear how said "information provider" function is different from the "broadcaster" function. Second, although the applicant speaks of function, the only clear distinction referred to is a corporate one, an ownership distinction. Ownership is inherently indefinite because it is a legal abstraction that can be created, merged, dispersed or destroyed at human whim. The US Supreme Court has ruled, "A corporation is an artificial being, invisible, intangible and existing only in contemplation of law." *CTS Corp. v. Dynamics Corp. of America*, 481 U.S. 69, 89, 107 S. Ct. 1637, 1649-1650 (1987) (citing *Trustees of Dartmouth College v. Woodward*, 17 U.S. (4 Wheat) 518 (1819)).

Assume the instant claims were allowed. Would the claims still be valid if Impulse Radio were bought by a broadcaster? What if a broadcaster bought exactly a half interest in Impulse Radio: would the claims then be half valid? 35 USC 112, second paragraph, requires that terms used to define the invention have a reasonable degree of definiteness. For example, "radio" meets the requirements of 35 USC 112, second paragraph, because it is conceptually definite. "information provider" as something distinct from "broadcaster" does not.

(B) At numerous places beginning with line 6 of claim 229, **broadcast content** is indefinite. See para. 11 below.

(C) At numerous places beginning with line 4 of claim 229, supplemental information is indefinite. See para. 13 below.

(D) At claim 244, "unrelated" is indefinite. The application (para. [0150] of the published application, US 20020141491A1, hereafter "the PGPub") gives an example, but an example

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does not constitute an "explicit" and "clear" definition beyond the scope of the example (para. 9 below).

(E) At claim 247, "the broadcast content" lacks antecedent basis.

Interpretation of claim Language

13. Note on interpretation of claim terms - Unless a term is given an "explicit" and "clear" definition in the specification (MPEP § 2106.II.C), the examiner is obligated to give claims their broadest reasonable interpretation, in light of the specification as it would be interpreted by one of ordinary skill in the art (MPEP § 2111). This means that the words of a claim must be given their "plain meaning" unless the plain meaning is inconsistent with the specification (MPEP § 2111.01.I and 2111.01.III). An explicit and clear definition must establish the metes and bounds of the terms. A clear definition must unambiguously establish what is and what is not included. A clear definition is indicated by a section labeled definitions, or by the use of phrases such as "by xxx we mean"; "xxx is defined as"; or "xxx includes ... but does not include ...". An example does not constitute an "explicit" and "clear" definition beyond the scope of the example. An applicant may define specific terms used to describe the invention, but must do so "with reasonable clarity, deliberateness, and precision" and, if done, must "'set out his uncommon definition in some manner within the patent disclosure' so as to give one of ordinary skill in the art notice of the change" in meaning (MPEP § 2111.01.IV and 2173.05(a)).
14. **First broadcaster party** (e.g., claim 229, line 2) is not disclosed in the spec. A **broadcaster** is widely disclosed but not defined. Both are interpreted as entities that broadcast. **Broadcaster/first broadcaster party** are shorthand for the broadcasting function and not necessarily functional nor entitled to patentable weight when they are not limited to "broadcasting".
15. **Broadcast data** is defined as "analog audio" broadcast information (para. [0039] of the PGPub). **Broadcast content** is disclosed only once in the spec. ([0191] of the PGPub) and is undefined. **Broadcast content** is interpreted to be **broadcast data**.
16. **Information provider** (e.g., claim 241, line 2), **second information provider** (e.g., claim 229, line 2) and **separate and distinct provider** (e.g., claim 247, line 2) are not disclosed in

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the spec. All three terms are interpreted to mean any provider of supplemental digital data (para. [0012] of the PGPub), including a storage device or other machine or apparatus.

17. **Supplemental information** (e.g., claim 229, line 3) is not disclosed in the spec. From the claim context (claim 229 lines 6-7 and claims 231, 233-235 and 238), **Supplemental information** is interpreted to be "supplemental digital data" (para. [0012] of the PGPub).

Claim Rejections - 35 USC § 102 and 35 USC § 103

18. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20. Claims 229, 230, 232-234, 236-241 and 243, -249 are rejected under 35 U.S.C. 102(e) as being anticipated by Kroeger et al. (US 6,721,337B1, "Kroeger" hereafter).
21. Kroeger teaches (independent claims 229, 238, 240 and 246-249) a method and system, the method (as represented by claim 229) comprising: Operating a *hybrid IBOC* system (col. 1 lines 16-19 and col. 5 lines 42-44), which reads on
- (inherently) sending from whomever sets the schedule, which reads on "a first broadcaster party", to the *dynamic scheduling algorithm 66/scheduler* (col. 4 lines 26-35), which reads on "a second information provider", a broadcast schedule information comprising data relating to a future broadcast by the first broadcaster party;

receiving *auxiliary data* on lines **54, 56 and 58**, which reads on "supplemental information associated with the data relating to the future broadcast", from whomever supplies this data, which reads on "the second information provider"; and

the first broadcaster party transmitting a transmitting a *hybrid DAB* broadcast (col. 3 lines 16-23, col. 1 lines 13-19 and col. 5 lines 42-44), which reads on "concurrently sending through an electromagnetic medium broadcast content according to the broadcast schedule information and the supplemental information to an end user device for playback of the broadcast content to the end user in conjunction with access to the supplemental information by the end user."

22. Kroeger also teaches at the citations given above claims 230, 232, 233, 237, 239, 241, 243, and 244.

23. Claim 234 and 236 add only non-functional descriptive material (printed matter) and were not given patentable weight (MPEP § 2106.01 and 706.03(a)A).

24. Claims 229, 230, 232-236, 238 and 239 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abecassis (US006192340B1).

25. Abecassis teaches (independent claims 229 and 238) a method and system, the method (claim 229) comprising:

Sending, to a second information provider (*dedicated information provider*, col. 17 lines 37-42) a broadcast schedule information (inherently, from col. 24 lines 51-58 and col. 20 lines 23-35) comprising data relating to a future broadcast by a first broadcaster party (*provider 411*, col. 11 lines 1-3 and 6-8).

receiving from the second information provider supplemental information associated with the data relating to the future broadcast (col. 2 lines 63-65 or col. 3 lines 49-51); and

the first broadcaster party concurrently (*in a substantially real time basis*, col. 24 lines 51-58) sending through an electromagnetic medium broadcast content according to the broadcast schedule information and the supplemental information to an end user device for playback of the broadcast content to the end user in conjunction with access to the supplemental information by the end user (also col. 3 lines 51-54, where *audio library* is defined at col. 2 lines 36-37, 41-45 and 51-53).

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26. Abecassis does not explicitly teach sending broadcast schedule information. However, under the principles of inherency (MPEP § 2112.02), since the reference invention necessarily performs the method claimed, the method claimed is considered to be anticipated by the reference invention. As evidence tending to show inherency, it is noted that Abecassis teaches information is preferably obtained and played in a substantially real time basis (col. 24 lines 51-58). This could be accomplished only if the schedule was sent in advance to a second information provider/*dedicated information provider*.
27. Abecassis does not teach that said sending is by said broadcaster party/provider 411. However, under *KSR v. Teleflex* (82 USPQ 2nd 1385), it would be obvious to have said sending done by the broadcaster party/*provider 411* because it requires choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success. The sending to the second information provider/*dedicated information provider* can only be done (1) directly by an *end user 431* (col. 11 lines 1-6) or (2) the broadcaster party/*provider 411*. There are no other possibilities.
28. Abecassis also teaches at the citations given above claims 230, 232, 233 and 239.
29. Abecassis also teaches: claim 234 (col. 2 lines 11-19); claim 235 (col. 29 lines 22-26); and claim 236 (col. 19 lines 1-16 and Fig. 6).
30. Claims 231, 237 and 240-246 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abecassis (US006192340B1) in view of Kumar (US005949796A).
31. Abecassis does not teach (independent claims 240 and 246, and dependent claims 231 and 237) sending the supplemental information in a sideband and transmission in an in-band, on-channel (IBOC) format. Kumar teaches sending the supplemental information in a sideband and transmission in an IBOC format (abstract). Under *KSR v. Teleflex* (82 USPQ 2nd 1385), the combination of Abecassis and Kumar would be obvious because prior art elements are being combined according to known methods to yield predictable results. Abecassis (col. 1 lines 8-12) has the objective of integrating supplemental digital information with radio audio broadcast and teaches every feature of the claims except supplemental information in a sideband and IBOC transmission. Kumar teaches these technical features (abstract) and teaches (col. 1 lines 46-49) that they help achieve Abecassis's objective.

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32. Abecassis also teaches at the citations given above claims 241, 243 and 244 (at the end of the Abstract. Abecassis also teaches claim 242 (col. 11 lines 17-19) and claim 245 (col. 1 lines 44-51 and col. 24 lines 51-58).

Response to Arguments

33. The applicant's arguments have been considered but they are moot in view of the new bases of rejection.

Conclusion

34. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donald L. Champagne whose telephone number is 571-272-6717. The examiner can normally be reached on Monday to Wednesday and Friday. The examiner can also be contacted by e-mail at donald.champagne@uspto.gov, and *informal* fax communications (i.e., communications not to be made of record) may be sent directly to the examiner at 571-273-6717.
35. The examiner's supervisor, Lynda Jasmin, can be reached on 571-272-6782. The fax phone number for all *formal* fax communications is 571-273-8300.
36. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

22 August 2010

/Donald L. Champagne/
Primary Examiner, Art Unit 3688